

3.1 Solving Systems by Graphing

System of equations--

2 or more equations
with the same variables

Ex 1:

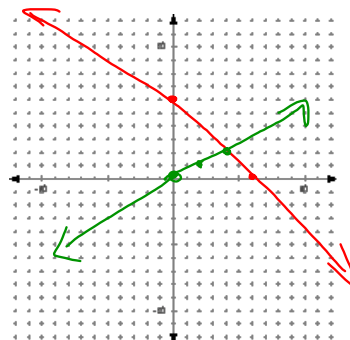
$x - 2y = 0$ Solve by graphing

$$x + y = 6$$

$$y = -x + 6$$

$$y = \frac{1}{2}x$$

$$(4, 2)$$



Ex 2:

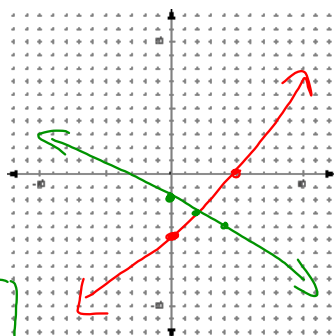
$$x - y = 5$$

$$x + 2y = -4$$

$$y = x - 5$$

$$y = -\frac{1}{2}x - 2$$

$$(2, -3)$$



Consistent:

at least one sol'n

Inconsistent:

no sol'n

Dependent:

∞ # of sol'n's
(on the line)

Independent:

exactly one sol'n

Ex 3:

$$9x - 6y = -6$$

$$6x - 4y = -4$$

$$y = \frac{3}{2}x + 1$$

$$y = \frac{3}{2}x + 1$$

Consistent + dependent

∞ # of sol'n's on the line $y = \frac{3}{2}x + 1$

